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Taking TEI Further:
A Series of Advanced Institutes

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Introduction: Audience, Mission and Impact

This white paper describes "Taking TEI Further," a series of advanced institutes in digital humanities that were conducted by the Women Writers Project (WWP) under an NEH Institutes for Advanced Topics in Digital Humanities grant between 2012 and 2014. This project built on a strong existing program of introductory workshops and seminars in digital humanities funded by two previous NEH grants, focusing on scholarly use of the TEI Guidelines. The Taking TEI Further grant funded the development of three new curricula on advanced topics that would enable participants to extend their introductory knowledge and "take TEI further": TEI customization, TEI publication with XSLT, and the use of TEI in the humanities classroom. We taught three instances of each topic over the course of three years and then created a set of self-guided tutorials covering our entire range of workshop topics. All materials from this project are published at the WWP web site under a Creative Commons license.

The major activities supported by this grant were the institute events themselves, and the subsequent publication of the curricular materials. Each of these activities is described in more detail below. Following each event we conducted an evaluation via a short anonymous survey of participants; the results are discussed in general terms in the Assessment section of this paper, and are provided more fully in the Appendix.

These workshops were aimed at an academic audience that includes faculty, digital humanities staff, and students. In the past, the WWP had taught intensive introductions to XSLT and TEI customization, and this new series was deliberately reframed to reach audiences who would benefit from a slower pace. Although the balance between faculty, staff, and students remained roughly the same overall, in this series we may have attracted some who would not have attended the more intensive versions, and their level of comprehension and satisfaction from the event was probably on balance higher than it would have been in the earlier series. Because of the high proportion of faculty in these events (and also of digital humanities staff who have a pedagogical role), materials and concepts from these events also had a secondary extended audience that includes participants' colleagues and students. In many cases participants were attending the institute either to develop skills they planned to use in teaching, or to equip them to play a training or mentoring role in a digital humanities project or center.

In understanding the long-term impact of these institutes, it is helpful to put them in the context of the WWP's institute and seminar program as a whole, which as of 2016 comprises 96 events spanning ten years, and which has involved at least 1500 participants from at least 180 institutions. This community includes include educators in a wide variety of roles: faculty who will incorporate TEI and related expertise into their classrooms, library and IT staff who will provide expert support and mentorship to digital projects and their personnel, and students whose future careers will be informed by insights into scholarly text encoding and data modeling. All of these people are, or will be, in positions of cultural leadership and it is clear from the evaluation results that they feel they have learned something that is not merely technically informative but deeply influential. This knowledge will enable them to create and manage higher-quality digital scholarly resources of their own, but it will also help them be more critical users and evaluators of digital scholarly products in general, and more informed participants in strategic discussions.

The other important form of impact comes from the availability of the institute materials as a reusable and adaptable curriculum. The WWP will continue to teach this material for the foreseeable future, and we are already training new instructors from among the WWP staff and graduate students who will be able to take it with them into future educational contexts. As part of this grant we created self-guided tutorial versions of most of the presentations, and shaped these into a set of coherent curricula (described in more detail below). All of these materials are published on the WWP site (http://www.wwp.northeastern.edu/outreach/resources.html) under a Creative Commons license and we encourage reuse and adaptation; we are also exploring ways to disseminate these materials via GitHub to make it easier for others to find and modify them. The institute events thus enabled us to develop, test, and refine a body of educational material that will have a much longer horizon of usefulness.

The Institutes

Taking TEI Further: TEI Customization

TEI customization—the process of adapting the general TEI schema to the needs of a specific project—is an essential skill for any serious user of the TEI, and a natural next step for anyone who has completed an introductory TEI workshop. The WWP's existing introductory curriculum touches on customization briefly, and we also already had a TEI customization workshop in our rotation. However, that workshop took a primarily technical approach to customization and was aimed at a fairly advanced audience; in "Taking TEI Further", we wanted to situate schema customization more strongly in a context of digital scholarship and show its connections to broader issues of project planning and methodological and editorial choices. In developing the materials for this institute, we wanted to retain the valuable core explanatory materials from the existing curriculum (slide sets explaining the TEI customization mechanism, the elements used in schema development, the discussion of documentation and good practice) while resituating the topic within a broader intellectual context: what kinds of strategic decisions go into data modeling? How does the creation of a TEI customization situate a project within the larger TEI context? How do we choose what to model? How can we use schemas to shape effective work flows? In addition, because of the expertise of our guest instructor, Trevor Muñoz, we wanted to include some consideration of data curation and the role that schema customization and documentation can play in the longevity of TEI data.

Customization can be done through a web interface, using the TEI's Roma tool (http://www.tei-c.org/roma) but only in a limited way. To fully understand how customization works, and to gain full control over the resulting schema design, one has to work directly with the XML code. In the past, we had always used the web interface for all "novice-level" treatment of customization, considering a full treatment of the TEI class system and the ODD format as too difficult to cover in an introductory workshop. For this grant, we decided to tackle the challenge of developing a teaching approach to TEI customization that would explain these difficult concepts in a more approachable way and introduce participants to the underlying XML data, and (most importantly) embed discussions of schema customization within a larger discussion of project strategy, data design, and data curation. To ground these discussions, we included a session that examined a set of real-world case studies to consider how work flow, project goals, and staffing might affect the design and use of TEI schemas.

We also wanted participants to make progress on a real customization for a real project, and to that end we created a series of thought experiments and assignments to structure the hands-on time. The first step was a customization plan in which they would map out their overall strategy and goals for the customization (e.g. to provide constraint at a specific point in the project work flow, or to represent a specific genre of document). The second step was to produce a simple customization that would trim down the TEI schema and eliminate unneeded elements; at this stage we also ensured that participants all gained a clear understanding of the mechanics of creating, saving, and using a TEI schema. The third step was to refine that schema further using more advanced techniques, such as changing attributes and adding new elements. We also left time on the third day open for any advanced topics that we wanted to cover by participant request, depending on the questions that came up in discussion.

Compared with our original customization workshop (which was intended as a more intensive introduction), this institute covered fewer technical topics. Because of the time spent contextualizing customization and discussing the ways customizations could be used (which we had treated only in passing in our other workshop), we had to eliminate several topics including Schematron (though we did cover this briefly by popular demand during the open time at the end of the institute) and RelaxNG. However, our expectation was that this institute would serve its somewhat different audience better in several ways. First, we felt that even comparative novices would come away with a firm understanding of the customization process (which was not always the case in our intensive workshop). Second, we expected that participants would come away with a strongly strategic sense of the role of customization in the use of TEI; too often, we felt, customization was being treated solely as a means of getting a valid TEI file, rather than as an important modeling activity with a broader and longer-term horizon of relevance. And finally, we felt that by giving participants more opportunities for discussion of their projects (and by extension for learning about other participants' projects), we could broaden their exposure to the real uses of customization and the different practical constraints and design rationales within which it operates.

To achieve these goals, in addition to revising some of our existing materials, we also developed several new resources for the institute, including a customization plan exercise, a set of case studies exploring the use of customization in three digital humanities projects (Digital Humanities Quarterly, the Women Writers Project, and the Shelley-Godwin Archive), and a conceptual modeling exercise. We also asked participants to do some advance preparation in the form of a short questionnaire (included in the Appendix) which asked them to think about their project from the standpoint of strategic and practical factors that would shape their customization strategy.

We made some minor adaptations to the curriculum during the course of the institute series, but the overall plan for the event remained essentially the same. The general outline of the event is given below, followed by links to the specific event records.

Day 1

- Presentation and group discussion: Introduce the concept of customization and work through a concrete demonstration as a group, using the Roma web interface
- Hands-on: Participants undertake a conceptual modeling exercise aimed at mapping out the modeling requirements for the participants' sample documents

- Presentation and group discussion: Introduce the basic TEI/ODD vocabulary for customization
- Hands-on: Participants create an initial customization following their initial conceptual model

Day 2

- Discussion and hands-on: Walk through the process of creating test files and using them to test the customized schema; participants test and revise their customizations and instructors help trouble-shoot
- Presentation and group discussion: Introduce more advanced customization vocabulary
- Hands-on: Participants develop their customizations further

Day 3

- Presentation and group discussion: Examine the role of customization in digital project work flow and data curation
- Presentation and group discussion: Explore approaches to documentation of schema customizations, and good practice in maintaining them
- Presentation and group discussion: Explore advanced topics that have come up in earlier discussion, or by request; further hands-on work
- Final questions, discussion, and wrap-up

The three customization institutes were held as follows:

- June 2012, Brown University
  Guest instructor: Trevor Muñoz,
  10 participants
  URL: http://www.wwp.northeastern.edu/outreach/seminars/cust_2012-06/
- May 2013, Brown University
  Guest instructor: Trevor Muñoz
  13 participants
  URL: http://www.wwp.northeastern.edu/outreach/seminars/cust_2013-05/
- May 2014, Northeastern University
  Guest instructor: Trevor Muñoz
  17 participants
  URL: http://www.wwp.northeastern.edu/outreach/seminars/cust_2014-05

The first customization institute was successful overall, but feedback from participants and our own observation indicated that there was room for improvement. In particular, we felt that participants would have benefited from more focused discussion of the case studies (which were presented in a way that did not link them clearly to customization goals), and participants would have liked to have more presentation of the participants' own work as case studies. Some of the exercises (such as the conceptual modeling exercise on the first day) were too ambitious and needed stronger scaffolding to guide participants. Also, some participants would have benefited from coverage of some additional advanced topics such as Schematron (although others felt the institute was already fast-paced enough). Because some of the material

was entirely new, there were some issues with time management; some components of the institute took longer than anticipated, and others didn't pull their weight sufficiently. We felt the customization plan exercise and discussion needed to be situated more productively, perhaps by design the plan as an exercise to be completed in advance of the workshop.

In revising the curriculum for the second institute, we made the following changes:

- We provided a more focused set of advanced questions for participants to address before coming to the institute, to serve as groundwork for the customization plan and enable them to move further during the institute; participant feedback indicates that this advance preparation was helpful.
- We reordered several sequences of events so as to provide more time for individual hands-on practice, and also to position the hands-on exercises in a better relation to the introduction of customization concepts.
- We improved the scaffolding for several of the hands-on exercises, including the conceptual modeling exercise and the customization plan.
- We refined and strengthened the presentation of the case studies, and we used discussion time to solicit examples and problems from the participants' own projects. Discussing each participant project in full would have taken too much time, but we did a better job of bringing in these examples and providing opportunities for group discussion of participants' projects.
- We continued to refine the slides and explanatory metaphors as we learn more about teaching customization to a novice audience.

Following the second event, we made further revisions to the handling of the case studies and the initial conceptual modeling exercise.

Taking TEI Further: Transforming and Publishing TEI Data

XSLT (the Extensible Stylesheet Language for Transformation) is another essential component of the TEI universe. As the name suggests, it is the method by which TEI data can be transformed into other formats such as HTML, JSON, RDF, KML, or any other kind of output that may be needed for publication or data reuse. As in the case of TEI customization, the WWP already had a workshop curriculum in place for teaching XSLT, but it was fast-paced and aimed at an audience comfortable with mastering new technical systems, and tended in practice to leave the most novice participants confused. In this we were not alone; XSLT workshops are common but are mostly aimed at programmers and technical staff, not at humanities scholars, and there is a real dearth of explanatory metaphors and pedagogical strategies that start from concepts humanists are familiar with. Our goal with this institute was to design a genuinely introductory workshop on XSLT that would leave no one behind; rather than optimizing for maximum learning by those most comfortable with the topic, we wanted to optimize for maximum learning by those least comfortable. We understood that such a basic approach would leave many participants wanting a second, more advanced workshop, since we would need to radically scale back the number of specific skills we could cover. The pedagogical goal was to provide enough of a grounding that participants could understand how XSLT works, communicate more effectively with developers on XML projects (with an understanding of XSLT's capacities and limitations), and determine whether this was a skill for which they had any personal use or aptitude—in which case they could seek further training. We also wanted

to introduce participants to the types of XML publication systems and tools that are in common use in digital humanities (particularly those in which XSLT plays a role) so that they could understand the broader topic of "XML publication" and the options available.

In designing a revised curriculum to meet these goals, we focused on a few key areas. First, we worked hard to come up with a set of strong explanatory metaphors and diagrams, getting away from the ways in which XSLT experts tend to explain it to themselves, and developing an explanatory vocabulary that is genuinely intelligible to novices. The diagrams replaced earlier slide sets in which technical terminology was foremost, and instead provided a visual explanation of XSLT that participants could examine and question during the presentation. As part of this effort, the project director (who was unfamiliar with XSLT at the start of the grant) learned XSLT from the other lead instructor (Syd Bauman) and together they developed explanations that helped her understand it. We also reorganized the relationship between presentations and hands-on practice to create a hybrid class format which we described as a "group exploration." In each exploration session we took an extremely simple stylesheet (often with only a tiny handful of templates) that demonstrated a specific feature of XSLT and walked through its operations one by one, explaining what was happening, with the participants following along on their own computers. Using the Oxygen XML editor's debug mode (which displays the input data, the stylesheet, and the output data in parallel windows), we enabled participants to trace the effects of specific components of the stylesheet by modifying them to observe the results. The dynamic nature of this exploration (make a change and see the effect, make another change and see the effect) helped to reinforce an understanding of how XSLT works. Although the stylesheet typically did nothing especially interesting or useful in itself (and hence would have been impoverished in a more advanced context of actually learning XSLT vocabulary and functionality), its very simplicity ensured that participants could really internalize the logic of what was happening, without any mystery or confusion, and understand *how XSLT works*, which in our experience is the most baffling part of learning XSLT for many people. Participants could run their own experiments or propose changes to the stylesheet in a "what if…" spirit. We could also propose thought experiments during the course of the discussion in which we might make a change to the stylesheet or data and ask participants to predict the resulting output. Because the group exploration was inherently improvisational— using the basic stylesheet as a jumping-off point—we could adapt these thought experiments to demonstrate whatever seemed most useful given the participants' questions, interests, or remaining confusion. Participants were able to take a much more active role in shaping the learning process, rather than being at the mercy of a predetermined slide set (but also without the disorientation of a completely open-ended hands-on session). Quite often participants would request a particular thought experiment just to test an idea or clarify some point they didn't feel sure of. The resulting modified stylesheets (with explanatory comments) were saved and linked from the course syllabus so that participants could return to them as needed for reference.

Following each group exploration, participants were given an opportunity to work on their own on some more complex exercises which we provided. Unlike customization and teaching, XSLT doesn't lend itself quite as well to a focus on individual participants' projects, because most TEI users have data (and ideas about how to use it) that is too complex for novice-level XSLT. Instead, we provided both data and stylesheets to get things started from a predictable point, but encouraged students to modify the stylesheets to work on their own data. Students who

wanted to work on their own data or develop new stylesheets from scratch could do so and get help during the hands-on portions.

We made some minor adaptations to the curriculum during the course of the institute series, but the overall plan for the event remained essentially the same. The general outline of the event is given below, followed by links to the specific event records.

Day 1

- Presentation and discussion introducing the basic concepts of "publishing" TEI: the idea of single-source publishing, the different kinds of outputs one typically generates from TEI data, the kinds of purposes to which they might be put in a typical TEI/XML work flow
- Presentation and discussion introducing the basic concepts of XSLT and how it works: the concepts of templates, the way the XML processor works its way through the XML tree structure, the way the output document is generated; walk through a couple of very simple examples showing the input, the stylesheet, and the output so that students internalize the process.
- Group exploration: run through another simple transformation, this time in the Oxygen XML editor using debug mode so that the class can see each step taking place; as a group, make various modifications to the input and the stylesheet so that we can observe how they affect the outcome (observing causality helps participants internalize the logic of the stylesheet)
- Group exploration followed by hands-on practice: as a group, run through another simple transformation, this time demonstrating how to process repetitive data.

Day 2

- Presentation and discussion introducing the concept of navigating the tree, pointing at and selecting different parts of the input document for processing using XPath
- Group exploration followed by hands-on practice: explore more complex transformations that calculate statistics, provide sorted output, and make global replacements
- Presentation and discussion introducing the idea of conditionals and the XSLT vocabulary to implement them
- Hands-on practice with a set of exercises designed to reinforce the XSLT features we've covered so far

Day 3

- Presentation and discussion examining two XML publishing tools (the Extensible Text Framework and TEI Boilerplate), explaining how they work and demonstrating how to customize them
- Group hands-on experimentation with XTF and Boilerplate
- Final discussion, questions, and wrap-up

The three events were held as follows:

- December 2012, Brown University
  Guest instructor: David Birnbaum

18 participants
URL: http://www.wwp.northeastern.edu/outreach/seminars/publication_2012-12
- November 2013, Brown University
  Guest instructor: David Birnbaum
  13 participants
  URL: http://www.wwp.northeastern.edu/outreach/seminars/publication_2013-11
- March 2014, Northeastern University
  Guest instructor: David Birnbaum
  13 participants
  URL: http://www.wwp.northeastern.edu/outreach/seminars/publication_2014-03

The first event went smoothly and was a success. Although we had already taught XSLT workshops in the past, this event represented a radical redesign and we were somewhat unsure going into the institute whether the pace would be appropriate, and whether the audience would find the balance of technical and conceptual topics compelling. Feedback from the participants was very positive (and is discussed in more detail below), and we were reassured to find that our approach paid off, in that all participants did grasp the essentials of XSLT and were able to write and adapt simple stylesheets as the institute proceeded. This contrasted well with previous XSLT workshops we had taught, where the speed and comprehensiveness of the schedule meant that some participants fell behind permanently (or were able to go through the motions mechanically but clearly did not feel any sense of comprehension). In this institute, we felt that participants all came away with the level of understanding and benefit that we had hoped for in designing the institute.

In our post-event discussion and review of the evaluations, we did identify several ways in which we could improve the design and execution of the event in the second round of institutes:

- by clarifying and improving the slides on the more technical topics (for instance, explaining conditionals) to provide clearer examples; these presentations received less attention in our initial overhaul than the introductory presentations and they still needed work. In revising for the later institutes, we streamlined the opening presentations and refined their presentation of concepts based on observations of the flow of presentation and questions in the earlier events.
- by providing an easier way of sharing the examples and demonstration materials that we create on the fly, during the course of the discussion; we often created a sample file to illustrate a certain process in response to a specific question, but participants had to wait until we could create a link and update our server to get access to the results.

The participants' feedback also prompted some reflection on our use of XTF as an example of a TEI publishing tool. In the first institute event, the XTF exercise on the third day of the institute seemed too challenging, and in revising for the later institutes, we provided clearer scaffolding and instructions for the exploration of XTF and TEI Boilerplate on the final day. In all three of the publishing institutes, we also ran into some challenges in getting XTF installed on participants' laptops (because of differences in operating system and individual configurations).

We were able to work through these and reach a successful outcome, so all participants did get to experiment with this tool. However, in the evaluation of these events, a number of respondents to the question "**What portions of the seminar did you feel were least helpful or least successful?**" indicated that the final day's sessions on XTF and TEI Boilerplate seemed either less successful or less useful than the rest of the workshop. Taken in combination with the desire expressed by several participants to cover further topics in XSLT, perhaps this indicates that the attempt to contextualize XSLT through XML publishing tools is not ultimately what participants most need from a workshop like this. The focus on XSLT itself may be the more valuable and scalable takeaway knowledge.

Feedback from the participants was very positive (and is discussed in more detail below), and our sense was that participants all came away with the level of understanding and benefit that we had hoped for in designing the institute. Expertise levels varied considerably, but we were reassured to find that the pace and level of this workshop felt appropriate for the more novice members of the group, which was the intended audience. It is notable that none of the participants indicated that the pace was too slow, even though some did express a wish to learn more (by adding a fourth day). This informally confirms our assumption in designing this workshop that novices are capable of learning XSLT but need more time in the early stages to internalize its logic and notation; difficulty in learning XSLT is more likely to result from too fast-paced an initial presentation of concepts, rather than from any intrinsic difficulty in the topic. Our instructors have noted that it is actually quite difficult for those who have learned XSLT and are expert enough to teach it to remember what is difficult and confusing about it; we deliberately have our least advanced instructor take the first day's presentations, precisely because she is least likely to speed through explanations.

Taking TEI Further: Teaching with TEI

This institute had a dual aim and almost a dual title: teaching the TEI, and teaching with the TEI. Both of these rubrics represent swiftly emerging needs. There has been increasing demand in the past decade for workshops on TEI encoding, and also for semester-long courses in the context of graduate programs in digital humanities, where TEI is coming to be a formal professional competence. But in addition, the rise of graduate and undergraduate courses in digital humanities methods means that instructors have opportunities to teach the TEI in contexts where TEI expertise is not the goal. TEI can be valuable in these courses as a way to teach data modeling, or close reading, or scholarly editing, or XML, or data curation. We wanted to design an institute in which all of these approaches could be explored and considered.

This institute was thus organized as a kind of intensive group brainstorming exercise, on the premise that people wanting to teach (or teach with) TEI are already experienced teachers who will benefit from the opportunity to share ideas and experiments with others in a similar situation. Unlike the other two topics, this one was largely non-technical, so the focus was much more on discussion. The instructors in this case did not function predominantly as sources of expert information but rather as facilitators, and the schedule was designed to offer a provocative set of conversational prompts and framing tasks through which participants could work out their own ideas, receive feedback, and contextualize their work. As with

Customization, we wanted to give participants an opportunity to work on their own materials: we asked participants to come prepared to work on an idea for a course or a course module.

We made some minor adaptations to the curriculum during the course of the institute series, but the overall plan for the event remained essentially the same. The general outline of the event is given below, followed by links to the specific event records.

Day 1

- Introductions and profile of interests, eliciting themes and interests
- Small-group discussion of teaching objectives and the role TEI plays in the classroom
- Whole-group discussion of teaching objectives and examination of sample syllabi, looking at the different ways in which TEI is used and at different kinds of assignments.
- Small-group hands-on: start work on a syllabus or assignment/course module

Day 2

- Small groups report back on small-group hands on
- Presentation and discussion on the TEI teaching environment, thinking about what kinds of technical setup and preparation/choreography are needed for a TEI class or assignment to go smoothly
- Presentation and discussion on how to develop a schema customization to support classroom encoding exercises and assignments
- Small-group hands-on followed by discussion: participants develop a template for their course assignments and a schema customization to support the template, with discussion of any tricky or interesting issues that arise

Day 3

- Small-group hands-on in which participants try to work through the assignment they created, noting/discussing what worked well and what turned out to be difficult, and thinking about what kinds of support would be needed in order for the assignment to work
- Presentation and discussion of various options for creating display output of TEI data (including a demonstration of CSS and TEI Boilerplate)
- Hands-on practice focusing on experimentation with TEI Boilerplate, and further work on individual assignments and syllabi
- Final questions, discussion, and wrap-up, including discussion of what resources are available to teachers at their own institutions and elsewhere.

The three events were held as follows:

- August 2012, Brown University
  Guest instructor: Jacqueline Wernimont
  16 participants
  URL: http://www.wwp.northeastern.edu/outreach/seminars/teaching_2012-08
- August 2013, Brown University
  No guest instructor (Jacqueline Wernimont had to withdraw at the last moment for health reasons)

15 participants
URL: http://www.wwp.northeastern.edu/outreach/seminars/teaching_2013-08
- August 2014, Northeastern University
Guest instructor: Diane Jakacki (Jacqueline Wernimont had an unavoidable conflict)
16 participants
URL: http://www.wwp.northeastern.edu/outreach/seminars/teaching_2014-08

The first institute went well overall, but feedback from participants in the first institute, and our own observations, suggested that there were areas of potential improvement. The discussion time could have been used more efficiently, making room for more structured activities, and the hands-on time needed firmer prompts; we also felt that for this topic in particular, participants could really benefit from some advance preparation to establish a strong shared basis for discussion and to ensure that everyone had a minimum comfort and competence level in discussing the TEI. In revising the curriculum for the second institute, we made the following changes:

- We provided a set of sample syllabi representing a range of ways to incorporate TEI into graduate and undergraduate courses, and used these as the basis for a more sharply focused discussion about course objectives and the different roles TEI can play (as a specific technology, as a way of experimenting with data modeling, as a window into digital humanities practice, etc.)
- We eliminated the very basic review of TEI with which we had begun the first institute, and instead circulated in advance a set of review readings designed to help participants get up to speed on TEI if necessary
- We introduced some more focused "assignments" to shape the small-group discussion sessions, breaking the participants into small "working groups" based on affinity for a particular teaching approach. Each working group was responsible for developing a plan for a specific course or course module, an accompanying TEI encoding exercise, and a customization and template to support that exercise. We also used some of the general discussion time to hear reports from each group.
- Throughout the event we took fairly detailed public notes (in a shared Google doc) and these proved to be a useful way of making sure that suggested readings, sites, and other details were not lost and could be immediately shared throughout the group.

The second institute on teaching was highly successful and went more smoothly than the previous year's iteration. Participants were engaged and the discussion was extremely illuminating, productive, and wide-ranging. Feedback from the event was also positive (and is discussed in more detail below). A few smaller changes were made in preparation for the third institute: we circulated the syllabi in advance and asked participants to make notes in response to a set of questions about them, to help sharpen the discussion of these syllabi, and we also asked participants to share a syllabus or course plan (even a draft) of their own in advance, so that participants had some familiarity with each other's work in advance. The balance of time allocated to individual and group hands-on remained an open question and in the end we decided that the optimal balance was highly situational and depended on the chemistry within groups, which made it difficult to design a single perfect curriculum. However, the concluding

event was highly successful and went very smoothly, with an excellent discussion. Feedback from the event was also positive and is discussed in more detail below.

Publication of Curricular Materials

Part of our goal in holding this set of institutes was to have the opportunity to develop and test these curricula, so that they could become a permanent feature of the WWP's training materials. As with our previous two seminar series, all materials developed for these events are published under open access at the WWP's web site. This includes slides, lecture notes, demonstration materials, and handouts. The WWP's seminar materials are authored and maintained in a system that combines several notable features. First, all materials are authored in TEI (which feels appropriate given the subject matter). The slides and lecture notes for each presentation are generated from a single TEI file using XSLT, and participants have access to both the source file and the two outputs. Second, each presentation exists in a "master" form which is updated as needed; the schedule for each event points to these master versions, so that there is no duplication of content. (Formerly, we cloned these master versions for each event so as to preserve a record of what was actually taught and to enable participants to go back and review the materials as they originally appeared. But we eventually decided that the benefits of historical preservation were outweighed by the benefits of having current information; since all materials are maintained under version control, we can always recover a previous version if requested.) The benefits of this approach are significant, both for us and for the participants: it greatly simplifies the task of maintaining and updating a large set of presentations (we have slide sets on 46 distinct topics, many of which have several different slide sets intended for different audiences or pedagogical situations), and it makes it very easy to make updates as needed very quickly, even during the course of a presentation (since all presentations are published and used from our web site). At times, one presenter has noticed an error on the current slide, fixed it, regenerated the slides, and updated the server to make the fix visible in the course of a minute before the other presenter has finished discussing the slide in question. For the participants, it means that all of our materials are permanently available without risk of format obsolescence, and it also enables them to follow the presentation on their own computer, including the lecture notes (which is helpful for accessibility).

In the final phase of this institute series, we extended the value of these materials further by adding a new form of output: the self-guided tutorial. For most of our presentations, the lecture notes already constituted a fairly full explanation of the slides and in fact we have found that some readers have used the slide sets and lecture notes as a kind of tutorial in the past. However, in some cases the tone and wording were more appropriate to a live event (where body language could help explain a slide, or where audience discussion might be used to elicit information). Using the existing lecture notes as a starting point, we created an additional "tutorial note" element in the same master source files, so that each slide now was accompanied by both a lecture note and a tutorial note. Our graduate research assistants then worked through the tutorial notes to make necessary modifications and expansions for a self-guided audience, filling in gaps and adjusting the tone and wording. We also adjusted the XSLT so that in addition to generating slides and lecture notes as separate outputs, it also generates a side-by-side display of slides and tutorial notes, suitable for a self-guided learning process. Finally, we created a set of formal "primers": sequences of tutorials that mirrored the flow of the

institute events but also suggested related topics that might be of interest. These primers include the materials developed for our two previous NEH-funded institute series (one introductory series and one advanced series) as well as the one just completed.

The full list of WWP seminar events (including these institutes) is available at http://www.wwp.northeastern.edu/outreach/seminars/event_list.html.

The full list of institute resources (created for these and also past institutes) is available at http://www.wwp.northeastern.edu/outreach/resources.html.

The full list of self-guided tutorials is available at http://www.wwp.northeastern.edu/outreach/resources/.

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Assessment

Summary

To assess these events, we designed a survey which was included as a link to the final wrap-up slide sent and was also sent to all participants following each event as part of our regular followup email. The survey included 13 questions; a few were multiple-choice questions about which institute the respondent had attended and about the pace and technical level of the event, but most were open-ended questions requesting feedback on different components of the course and suggestions for how it could have been improved. A sample copy of the survey and a full set of responses is included in the Appendix.

Overall, the responses were overwhelmingly positive for all of the institute events, and included substantive commentary on what worked and why. While participants often offered suggestions for improvement or indicated where they had had difficulty, these responses were typically couched in positive or qualifying terms (a version of "it was all great, but there was one little thing…" or "I think this was just me, but…"). We still needed to take these comments seriously as areas for improvement, but it was reassuring to learn that participants had taken away such a positive experience. The response rate varied from event to event and was 60% overall, which is not as complete a response as we would have liked; the possibility exists that those who did not respond were less enthusiastic (and hence less inclined to offer feedback). A few especially memorable quotes are worth highlighting here. From the survey responses on "Taking TEI Further: Customizing the TEI":

- "These seminars have become the 'go-to' place for people involved in TEI work and I cannot emphasize enough how valuable the seminars are. When I meet people at conferences who have attended these seminars, I feel a sense of kinship. The seminars also provide a framework for knowledge of TEI that I find valuable. The TEI community is a fairly small one and although the TEI documentation is very comprehensive, there are not many resources available to tell you if you are managing your project properly or if you are approaching your TEI encoding properly. The community that has grown around these seminars provides this. Thank you to the organizers."

- "I was intrigued by the philosophical thoughts on how customization may serve and challenge scholarship and models for research in the humanities. This understanding can be hard to get on your own and the combination with hands-on makes the seminar unique."

From the survey responses on "Taking TEI Further: Transforming and Publishing TEI Data":

- "I feel like I learned more in 3 days than I could have taught myself in 3 months. Thank you!"
- "This seminar was excellent. I have taken other similar courses and this was the most successful in several respects. I especially appreciated the sample XML and XSL documents created to accomplish pedagogical goals, the theoretical and practical approaches to the technologies, and multiple teachers in the room to reflect different facets of an issue and to aid with participants on the fly. Thank you!"
- "Just to say a big thank you. Julia and Syd, under the auspices of NEH, have trained and are continuing to train a generation of digital humanists."

And from the survey responses to "Taking TEI Further: Teaching with TEI":

- "This was the best digital humanities seminar I have ever attended (and I've attended quite a few). The group dynamic was really wonderful. It seemed like everyone was engaged, participating, and benefiting and it was an excellent networking opportunity. Thank you, Julia, in particular, for your attentiveness to gender dynamics in discussion. Also, many thanks for the funding opportunity; this would have been difficult to afford otherwise."
- "I can't speak highly enough of Julia and Syd. Very capable, obviously fluid in their interaction together and expertise with the material. I think this feedback is supposed to go to the NEH and of course they won't include this comment because they are too humble."

We also conducted our own assessment of these events through post-event debriefing discussions in which we reviewed notes on timing, particularly successful or unsuccessful moments, proposed improvements to slide sets, and topics to reinforce. These assessments were fed immediately into revisions in preparation for the next event.

Retrospectively, considering the series as a whole, we see some important successes and also some areas where we could have done better. Where we did least well was in the followup to the events. Via the WWP's discussion list, we have provided prompt feedback to questions and an opportunity for sharing outcomes and next steps, but we have not pushed those opportunities as actively as we could have or provided active incentives for participants to share completed materials. The window of opportunity has not entirely closed for that—indeed, some participant projects and courses may just now be coming to a state of readiness for sharing—but we could have done more to cultivate more active post-event discussions. The successes of this project lie in two areas. From a teaching perspective, these institutes were successful in making a shift in pedagogical culture away from isolating "technical" skills and towards approaches that emphasize continuities between tools and research. An important

aspect of their success lay in their creation of a comfortable and sociable learning space in which strong vectors of engagement existed between participants as well as from participants to instructors. We emphasized the individual value and distinctiveness of each participant's project, both in the introductions and also throughout the events (for instance, in replying to questions about a preferred approach or a solution to a problem), and that gave each participant a position of expertise from which to operate and from which to help or inform others. From the perspective of larger impact, the curricular materials represent a very substantial contribution to the resources available for teaching and learning TEI and related topics, and we feel certain they will be useful for a long time to come.

Full Survey Results

The evaluation survey included a few questions to gauge the pace and technical level of the institutes and to discover whether respondents had attended alone or as part of a team. These responses are summarized below in the General Summary. The bulk of the survey was open-ended questions concerning the features of the event that had been most and least effective, suggestions for improvement, and questions about specific features such as readings and advance preparation. For each event below, we list all of the open-ended questions and provide a full list of the substantive responses to each question. "NA" responses have been omitted.

The response rates for these surveys varied from event to event. Overall, the response rate for the customization events was markedly higher than the other two. One possible explanation might be that the customization events were held consistently in early summer (so that the request for feedback might have come at time of comparative leisure) whereas the timing of the other six events was such that the feedback requests would have come at busier times of the year.

General Summary

Total responses:

Customization:	29 responses from 40 attendees (73% response rate)
Publishing:	23 responses from 44 attendees (52% response rate)
Teaching:	27 responses from 47 attendees (57% response rate)
Total:	79 responses from 131 attendees (60% response rate)

Did you attend on your own or as part of a team?

Customization:	27 attended alone, 2 as part of a team
Publishing:	20 attended alone, 3 as part of a team
Teaching:	16 attended alone, 11 as part of a team

How was the length of the seminar?

Customization:	26 responded "About right", 3 responded "Too short"
Publishing:	20 responded "About right", 3 responded "Too short"
Teaching:	26 responded "About right", 1 responded "Too short"

How was the technical level of the seminar?

Customization:	26 responded "About right", 2 responded "Too fast", 1 responded "Too slow"
Publishing:	20 responded "About right", 3 responded "Too fast"
Teaching:	27 responded "About right"

Customizing the TEI

What portions of the seminar did you feel were most helpful or most successful?

- The overview of how customization works and learning how to modify elements and attributes were the most helpful to me. It was also useful to learn how much work adding a new element is so as to think hard before deciding to take that on. The case studies were also extremely helpful to me to see how these skills can be applied to projects.
- The "architectural" perspective on the TEI.
- Overall, the entire workshop was well constructed so that each new piece of information built on the last. It was all very well organized.
- Being able to apply customization changes directly to my ODD was most helpful.
- Group-led navigation of the TEI guidelines, particularly in the course of creating a new element (the moon element).
- The seminar was terrific. It was a lot to absorb in three days, but that may also be a result of my fairly limited knowledge of TEI coming into the seminar. Instructions followed by hands on exercises were especially valuable. I also really liked learning about other TEI projects--WWP, SGA, DHQ.
- Working on breaking our material, as an entire collection, into component parts helped me focus on narrowing down what was really necessary in the customization.
- The format of slideshow/lectures followed by hands on practice was most successful for me. I had taken a look through the slides before arriving to get a sense of where things would be going, but enjoyed the flexibility of the instructors in being able to adapt content needs for the participants.
- The overview of project processes and infrastructure. In other words, how TEI and TEI customization fits into the overall project.
- The entire seminar was helpful, but I would emphasize the introduction/conceptual sessions and the session on project work flow as particularly helpful.
- Hands on sections, willingness to help with problems
- It was all very helpful
- The hands-on time and the projects presentations by Julia Flanders and Trevor Muñoz.
- I was intrigued by the philosophical thoughts on how customization may serve and challenge scholarship and models for research in the humanities. This understanding can be hard to get on your own and the combination with hands-on makes the seminar unique.
- I thought that making a schematic drawing of my documents was very useful for defining precisely what I wanted out of my customization.
- Really appreciated the direct one-to-one feedback from the instructors when we had the opportunity to try our hand at some of the customizations. I also really appreciated the

project planning portions, since I'm at the beginning of my project and trying to decide what happens next.

- I thought the introduction to customization as an intellectual product in its own right was especially helpful. This helped me to understand the real point of customization and gave me extra incentive to learn and understand the technical aspects of creating my own ODD
- Learning about Schematron was the most probably the most outstanding feature for me if not most important. I thought Schematron would be a lot more complicated. I'm pretty good with XPath but somehow never imagined that that's all that would be needed to do ASSERT and REPORTS. Seems self-evident now.
- All was good, hands on was great.
- The balance of conceptual modeling and hands-on practice provided a firm foundation for further independent learning.
- I gained a much better understanding of TEI schema are put together.
- The slides/talks on customization vocabulary were excellent. All the hands-on time was also great. And the links to documentation instructions were also really helpful: I tend to process information best when I can go back to written info that backs up what I've heard in talks, so those are important to me.
- Actually learning the relationships between ODD and schema files, and how to use each.
- I liked that theoretical was balanced with hands-on and that they were interspersed so that we could practice what we learned while it was still fresh in our brains.
- The combination of theory/concepts alternating with encoding practice was good and balanced the days.
- general overview of customization, basic & intermediate vocab; Roma; advanced topics; project workflow!
- I particularly enjoyed when he had specific instruction (on, i.e. how to add an element) followed by hands-on time, where we could try it ourselves. I also really appreciated the talk about documentation.
- Demo, but I want more.

What portions of the seminar did you feel were least helpful or least successful?

- Sorting through the process of creating a new element was a bit difficult.
- Needed a bit more time to build a customization.
- It would be difficult to go into so much detail about so many different aspects of customization, but I would like to learn more about Schematron and how to apply it.
- The XPath and Schematron sessions were presented in a rushed manner and only as theoretical constructs, without practical examples.
- No complaints...
- At points I wished I had completed an 'introduction to the TEI' but learning new skills is often a challenge despite any attempts at prior preparation! I enjoyed the opportunity to interact with participants at the first night dinner to learn more about their work in a casual environment.
- Schematron was a bit more than I needed.
- None
- The only problem is that it was a lot of information so it could get overwhelming quickly. A pamphlet with the information or some sort of guide would be great.

- Details of TEI which were not immediately relevant were a bit tedious to follow.
- I sometimes felt that the technical instruction sometimes where too detailed. I believe that I will go for that information in the situation that it will be needed. But it is hard to say, since it might be that I would never even think of finding that information if I hadn't heard about it before.
- I had a hard time understanding the productive difference between document-centric and data-centric representation ("customization plan," day 2). The customizer is harvesting data from his or her documents, regardless of whether or not he or she is representing the format of the document. If he or she is representing document format, this in itself is a type of data. I think my inability to understand the difference dogged my work later in the workshop.
- At times it seemed like we were just kind of let loose to do our 'own thing', which was both good and bad. Good, because we could try things that were specific to our project, but bad because it was kind of like being thrown in the deep end of the pool. I realize that much of the TEI is just 'go and figure it out', but it makes me VERY grateful for the patient lifeguards that were available for questions!
- I would have like to covered a bit more, including Macros and more on Schematron rules
- The pastries were delicious but too big for single servings and too sticky for computer work. Maybe something more healthy might be nice like sliced fruit with utensils and yogurt. The coffee was too cold by afternoon.
- It was hard to do much customization on the spot because of the time required to regenerate through Roma, but more because the data modeling thought process required more time than was available.
- For me, the first conceptual modeling exercise didn't work as well -- but I think that was because I took the instruction to "look up what class each element is in" very literally, thinking that there should be one obvious class. That confused me because it didn't fit with my understanding of how TEI works -- and of course, it wasn't what Syd's instructions actually intended either. But as a starting point, it really startled/confused me.
- I can't think of a topic that was not helpful.
- Schematron was where my brain shut off. I think it is useful to know about, but I'm not sure I learned anything that I will remember in a useful way. Not that it was too advanced or technical, but just that it was too much at that point.
- Sometimes the encoding discussion was too complicated for me to follow.

Do you have suggestions for additional topics we should have covered, or other activities that would have been useful?

- I wish there had been more time to explore RelaxNG and Schematrons.
- I think it would have been helpful to review several different customized schema (in addition to the examples provided in the presentations), walking through the decision process made for each
- I think it would have helped to split the audience into two or three groups on the last day: one to cover in depth the material from the first two days; another to learn schema basics; another to learn advanced schema.
- I think the seminar was very well balanced, and the opportunity to ask questions directly of the instructors covered any lingering issues.

- It might have been helpful to see the examples of the instructors' projects and workflow before starting into the TEI customization. Preliminary overviews of the projects of the fellow attendees might also have been useful. The primary question to start with in my mind is 'do I really need to customize?'. What are the situations in which customization is necessary.
- It would be cool to see a set of diverse uses of TEI and how they created what they did.
- No.
- I think more discussion of namespaces would have been helpful. One woman asked me if namespaces had to be URIs.
- You know, I'd actually have liked to walk through a customization example together (not just view and do, but actually all go through one). Julia did this with Roma, and it was super helpful to see how it actually worked (and more importantly, WHY it worked!).
- More on Schematron rules and Macros
- Given the time frame and given the time requirement for document analysis and learning curve for knowing the TEI elements I'm not sure how much useful work got done on my own project and I wonder if working through a full fleshed real-life shrink wrapped class project, complete with documentation, would be more useful. Then we would all go back with full fleshed examples. If there was an extra day than that could be for self projects. All that said, I am hopeful I made some key decisions for my project that I would not have reached without one to one discussion I had with Trevor.
- Seemed like the right amount of content for the time available.
- You all anticipated this concern and provided time at the end of the seminar to address some advanced topics of particular interest to participants--e.g., managing co-occurrence constraints with Schematron. Having those topics in reserve and polling participants seemed particularly effective.
- I thought the workshop was pretty comprehensive in covering the range of activities involved in customization and the overall potential (and pitfalls).
- I would have found it useful to see more examples of the decision-making process for customizing specific elements (and deciding what classes to keep, include, or exclude.) I think it would also have been helpful to have more discussion of what makes a particular element right or wrong for a particular project's purpose. We got into that last question on the last day at the end, and it was really useful.
- I would have liked spending more time with Schematron.
- it might have been good to do a case study as a group - analyze together what is needed and anchor it in the outline - we will learn this here.

Do you have suggestions for how we might improve the conduct of the seminar?

- Perhaps more practice with Schematron.
- review more examples (see above)
- Although we introduced ourselves and our projects at the beginning, it would have been helpful to hear from each other briefly later in the seminar, to see what we were learning.
- I took notes frantically, and wished I had recorded the talks so I could listen again (and again) to let things fully percolate. Three instructors to 12/13 participants was a great ratio!
- Overall great.

- Working on each others' projects and challenges would have been helpful. An outsider's perspective sometimes helps see new possibilities.
- Yes. 2 things. As there is little course material in this area I tend to use the slides a lot, both for repetition but also as tutorials. Sometimes when I want to train, the slides are a bit too general or ask questions where the answer is nowhere to be found and my memory (experience) lack the capacity to fill in the gaps. It would be such an enormous help if you would sometime in the future find the opportunity to develop your slides into full documentation, like an online training course or just two versions of the slides, one short version for the seminar and one version that develops the slides slightly more.
- Maybe we could talk about some of the Schematron/XPath stuff NOT at the end of the seminar; I'd even be willing to do an evening session to cover this if there were interested parties (optional attendance, for example).
- Though, it is hard because everyone is a different levels, I would have like to push further into ODDs. Our time together is so valuable. It is very rare to have the help and attention of people with the expertise that the seminary presenter's had. I would have like to covered even more.
- I would like more help with document analysis and what that means for best practice data modeling. I'm not convinced the knowledge has been systematized enough but I don't understand why. 2. Teach more about using Oxygen. I think a lot of projects don't succeed as well as they should because people don't have or don't know how to use the right tools. Just like professional building builders must be well trained with their tools same would seem true about data builders. 3. Provide a common diagramming tool for everyone to use for the data modeling assignment. I didn't make much headway with my attempt with Power Point. Aren't there any powerful tools for this, especially when one considers the process will have to be iterative? 4. Why not video tape sessions, or at least the lectures, and post them online? I need to share what I learned back at the office.
- Would be nice to have a group box lunch where participants could share / show / talk about their projects.   Also would have been nice to have name tags, or since you had photos for yourselves, put those up on the wall with names or something - was hard to remember names/institutions with just a brief introduction.
- No. The balance of conceptual background, introduction to resources, and hands-on practice seemed just right.
- Perhaps some exercises concerning how to customize for certain areas where TEI might seem inadequate. We did one example for an FAQ, but it was a little spur of the moment.
- Minor, easy thing: it would be lovely to have a link in the presentation slides that went back to the main page, so that one could get there from the middle of a particular presentation. (Not that I really mind fiddling with the URL, but a link would be even quicker.)
- no - maybe a little larger space to work would have been useful, but having everyone around the table was very more important as it contributed to the comradery of the sessions.
- I thought it was well-balanced.
- Demonstrate things more than once. Seeing things once and then trying to perform it on my own made me want to see it a few more times. I would also love to have a list of steps to reference (more detail than a slide with all steps). More in the way of case studies to look at would be helpful.

If readings were suggested, which readings were most and least helpful? are there other readings you can recommend?

- none suggested
- TEI guidelines, class HTML slides (both were most helpful). No other readings were assigned.
- Haven't had a chance to look through additional resources yet.
- The WWP website with its archive of slides, notes and resources is proving to be a very helpful source.
- References to the slides and examples will be very useful. However I'd guess a lot more readings could have been suggested. I could see providing an annotated bibliography with reference to TEI conference papers etc.
- I would have liked to have some advanced suggested readings. As for what might have been useful, I'll think about it, and write.
- Excellent documentation and readings.

If advance preparation or exercises were assigned, how useful were they? Are there forms of advanced preparation you can suggest that would have enhanced the seminar?

- none assigned, but it might have been helpful to read through a few of the TEI guideline chapters ahead of time
- I met with team members before coming to Brown and we talked through answers to all the preparatory questions. This was an invaluable process - it made us think in a very focused way about our goals, and how we planned to achieve them. It's often a challenge to keep on target when in the thick of things. It would have been worthwhile perhaps to had the option of sharing a few details with other participants before the seminar started to get a sense of the projects they were working on etc.
- I found the 'preparation questions' very helpful - they certainly sharpened my and improved the learning experience.
- Perhaps some examples from previous projects and how TEI customization was applied would have been useful as preparatory activity. It would allow to also compare our understanding before and after the workshop.
- It was really good to think through my project before coming to the class.
- The pre-workshop questions were GREAT. Really forced me to think about the user of my project. I keep going back to my answers and refining them, even though the workshop has finished.
- I thought that the prep work suggested by Julia was very apropos; having my own project to work on helped a great deal. I would also have been happy to have a test project to work on in order to try my hand, so to speak.
- Advanced questions were very helpful. I think some advanced assigned reading might help us hit the ground running on the first day.
- The advance questions were very useful. I'm trying to promote them as part of building an institution strategic plan, our digital database being the core resource of our institution. Most people here assume the data is what it is and think only of usage alternatives but without thought to data modeling.
- The suggestions for thinking through a customization project via several focusing questions helped prepare me to make effective use of the seminar. Some additional exercises aimed at

visualizing/modeling the relationship between a customization and existing TEI markup might have been useful, but it might not be practical until participants had some experience with ODD files.

- More advance modeling of my project might have helped me apply the knew knowledge immediately, but it might also have interfered with my ability to think broadly about the issues the rest of the group was interested in. So, overall, I was pretty happy with how much I had done in advance.
- They were okay, but they asked questions that I've been asked before, and though I did go back and see whether my answers had changed, they didn't prompt any new reflection. HOWEVER, post-workshop, as I keep working through the material, they're more interesting, and potentially useful.
- The questions were useful to consider during my travel there.
- I wish I would have studied the model classes and the attribute classes more, since that is not the way I usually think about the TEI.
- Advanced prep is always hard to fit in, so I did less for this than I had intended. It may be a generalized pattern, but knowing that there was material to look at in advance was a good thing.
- they were useful, but in my case, I didn't have enough time to do it properly (my fault).
- I found the advanced preparation helped me a lot. It would also be useful if participants came to the course with a list of what elements and attributes they use in their documents. (Maybe send the XPath so people can easily find that?) We could do a worksheet where we list our elements, attributes, and applicable modules and models.

Would it be helpful to you to share materials with other participants after the seminar, and to see the materials that others create (e.g. customization files, documentation, lesson plans and syllabi, stylesheets, etc.). If so, what kinds of materials would be most useful?

- While I like the idea of sharing materials between participants, it does not suit my learning style. I find it difficult to get past the particulars quirks of other people's projects and see the common coding issues. The sample exercises provided in the seminar are much more helpful.
- Yes, especially customization files.
- Customization files would be helpful. I'd like to see examples of others' work to use as models for my own.
- Yes, customized odd files would be interesting to inspect. I am now very curious to see how Schematron is being deployed in customized projects!
- Not sure--perhaps sharing customization files.
- Seeing the customization files and some implementation examples would be helpful
- Yes, definitely. Speaking with other participants both at Brown and the recent DHSI I felt it would be helpful to be able take a look at other's work in the light of the discussions we'd had in class, to take a look at their solutions to encoding problems.
- I regularly make refer to the online slides and other materials from this and other WWP seminars. These are extremely valuable. A contact list of other attendees might be useful for following up with people about their projects, but I don't see a need to necessarily share attendee materials.

- Yes it would be great to share materials and collaborate.
- Yes, definitely
- I think it would be really interesting to get a list of the projects participating so that you could glance their web-page (if existing) while listening to their questions.
- I would like to see other participants' projects, both the customizations they have written and their final products.
- YES. The customization and documentation would be very helpful as long as I knew what the goals of the creator(s) was.
- ODD files. Workflow to publication documentation.
- Absolutely! Well-documented ODD files would be the most useful materials, followed by links to completed projects based on those customizations.
- I think that the materials the workshop organizers place on the web are the most useful. After that, the community the workshop creates is a really fantastic resource. The listservs and the private contacts that arise out of the workshops are the most useful resources that I would want to turn to for further customization projects.
- Yes! I would like to see what customizations other people are making (and would be happy to share my own). Ditto for any thorny problems that people are having; and for my own.
- I think more time to view others' schema or projects would have been interesting and (possibly) helpful.
- Yes, and I wish we would have shared more on the last day. It would have been interesting and helpful to see what the other participants were working on. I know there is some hesitation with showing work that you don't feel expert on, but I think it would have been useful.
- yes, sharing would be useful and it would be nice to have each attendee write a narrative of what they are planning to apply to their project and how in general terms they are planning to accomplish this. That way we could see what the others are doing and contact them directly for the detailed info. (odd files, doc files,)
- sharing materials could be helpful (see if someone tried to do the same thing, how they did it etc.); but should not be mandatory. customization files & documentations would be most useful for me if the project is (somehow) similar to mine
- Yes, I think it could be helpful to share well-documented customizations.
- Yes, this would be helpful. It would be nice to have a list of projects that are online.

Are there other forms of followup activity that would be valuable, either from the WWP staff or from other participants?

- It might be helpful to solicit input from students on aspects of the TEI guidelines that are not presented as thoroughly or clearly as they could. For example, the two main pages that discuss customization have material lacking in the other, and also do not explain some of the background that we got in class.
- The WWP forum will be useful for future questions and as I mentioned, having a document that lists names/emails/project details of fellow participants would be useful to ask 'how did you do that?'.
- Perhaps a site where past and current participants share links to their projects and give a couple example of how they've used the TEI customization in their work.

- As we discussed on the last day, it'd be great to have feedback on the project as it continues. This has whetted my appetite to go further, but I'd like some sort of review process/suggestions by people who know more than I about TEI.
- I could imagine webinar presentations by every participant on their project followed by web seminars focused on the presented project maybe split over too meetings per project and extending some months or else a three day or so webinar workshop that is participant centered. I left very curious about other's projects all of which sounded important and likely to provide valuable general lessons.
- Perhaps a reunion at TEI conferences.
- Not that I can think of.
- I don't think so: I mean, there's tons that you could do that would be helpful, but limits on human time/energy. I think that having the mailing list info is excellent.
- not at this time
- Staying in touch would be a good idea (I guess that's what the mailing list might be useful for, too)
- It would be great to have a "master" template that is thoroughly commented that provides examples of the basics we covered (how to add an element, delete, restrict values, etc.). This would be easier than searching through all the slides all the time.
- You are always lovely about answering questions, so thank you for offering to answering follow-up questions.

Are there any other comments you would like to share with us?

- Thank you all so much for another fantastic seminar. I've been able to do so much more with XML data based on what I learned in March and I suspect I will have the opportunity to write custom schema in the near future.
- Thank you very much for the opportunity to start learning customization.
- Thank you for giving me the opportunity to advance my training and my project.
- I'm glad the proposed exercise (where we instruct another class member to create a customized TEI document according to specs we wrote) was jettisoned. But going through the exercise was very helpful to me, in thinking about how to communicate TEI changes and their rationale. Thank you, NEH, for funding this very important workshop!
- Julia, Syd, and Trevor did a wonderful job! Many thanks!
- Per my comment above, it would be great if you could film/record some of your seminar presentations and include them with the slide sets on the website, perhaps as voiceovers!
- These seminars have become the 'go-to' place for people involved in TEI work and I cannot emphasize enough how valuable the seminars are. When I meet people at conferences who have attended these seminars, I feel a sense of kinship. The seminars also provide a framework for knowledge of TEI that I find valuable. The TEI community is a fairly small one and although the TEI documentation is very comprehensive, there are not many resources available to tell you if you are managing your project properly or if you are approaching your TEI encoding properly. The community that has grown around these seminars provides this. Thank you to the organizers.
- Great job over all and I really enjoyed meeting everyone in the class.
- Thank you -- the seminar was definitely helpful; more hands-on time would make it even better.

- Excellently taught, thought-provoking, and useful workshop! Many thanks to the instructors.
- I'm just very grateful to have been given the privilege of attending. Thank you Julia, Syd, and Trevor for your hard work, patience, and good humor! The whole workshop was extremely helpful. Good luck with the move to North Eastern!
- All three instructors Julia, Syd, and Trevor were super in their teaching ability, friendliness, enthusiasm, and understanding of and value given of participant issues. Confident but not defensive of their knowledge. The only criticism I might have is I don't feel that anything with a scent of programming needs to be presented so gingerly.
- Nicely done.
- Thanks so much for offering these seminars, which provide invaluable help to scholars attempting to climb the initial learning curve of technologies essential to their digital humanities work. The seminars enable scholars to tackle problems they otherwise might not attempt.
- Just thanks again to Syd and Julia and Trevor for all the hard work they put into preparing for the workshop.
- I'm really glad I came, and this gave me a lot to work through. Thank you all for your work in putting it together.
- I appreciate the time that is taken to share your expertise that with participants. I also appreciate the inclusion of external instructors in workshops I've attended.
- I like participants pages (e.g. ThatCamp http://penn2012.thatcamp.org/campers/). People can control whether they put up a photo or not and how much information they share. I find they help start conversations esp. with others who are working on similar projects or share a similar background or interest.
- Thanks to all for a very good seminar. It is provided me with the information I needed to finish the planning of my TEI encoding project with more confidence and more ability than before. (Thanks Julia for taking care of us in the refreshment department, much appreciated!)
- This was a great course. Thank you for running it. I would recommend this and other WWP seminars to friends and colleagues. One last thought: it might make sense to award scholarships not on the basis of student/non-student but distance. For a student who doesn't have to travel, the cost of the workshop would be less than $500; for faculty/staff/other coming from far away, the cost will be greater than $1000. Just an idea.

Transforming and Publishing TEI Data

What portions of the seminar did you feel were most helpful or most successful?

- Explanations of how the XSLT processor works, including the sequence of its operations and the logic behind it, was tremendously helpful. Guided explanations of sample problems was key to learning how I can better leverage XSLT for manipulating my data.
- For me the whole arc of the three days was useful, including instruction and hands-on experimentation.
- A standout for me, among many outstandings, was the session on KML. Not for the language's own sake—I doubt I'll use it in my own work—but as a powerful demonstration of TEI/XSLT in action.

- Day 2 the more in-depth, hands-on XSLT exercises dealing with selection and sorting were the most difficult and also the most beneficial to me.
- Concepts of transformation and practice!
- I enjoyed the whole seminar, though it did make me feel like there was a whole lot more to learn
- I enjoyed the whole seminar, though it did make me feel like there was a whole lot more to learn
- Sessions 5-6-7, and mostly XSLT complex transformations and conditionals.
- It was all great. I learned tons and everything was helpful. If I had to pick a favorite, it would be the section on variables and conditionals.
- the last day - publishing frameworks etc.
- The hands-on demonstrations were most helpful to me. I learn best by doing rather than simply watching or reading. I also appreciated the independent work time for similar reasons.
- I felt that the hands-on portions (either using examples or our own projects) to be the most useful
- I quite enjoyed the more formal instructional time, with Syd & Julia walking us through certain techniques.
- Everything! But the first day was probably most useful because it provided the foundation/understanding needed to get started with XSL
- Getting a sense of what can be done with XSLT, and of the various tools out there. I strongly suspect I'll be tweaking others' files more than writing my own, but I like to know how things work "under the hood" (and I need to know in order to adjust my own files to work as well as possible with the available templates; it's clearly a two-way process, and understanding the concepts and mechanisms underlying it, at least for me, is one of the most interesting parts).
- The first half of the workshop, related to XSLT transformations and navigating the XML tree were most relevant to my current needs, but all portions were informative.
- both the group hands on and the individual hands on served as important times to work with the content as explained in the morning sessions
- I found the first day's sessions most useful, perhaps because they were for me also the most intelligible. Learning the basics of XSLT made the TEI (and XML more generally) make a lot more sense to me.
- The slides that gave us a sense of the big picture were really helpful, and I know that I will refer to them again. Spending time with TEI Boilerplate was also really helpful to me. Also, Julia's metaphor help me to understand how to wrap my brain around these complicated new tools. And they keep me entertained!
- XSLT stylesheets and its relative hands-on practice
- the morning session on the second day. it was really useful that we reviewed what we have learned on the first day and consolidated it, and then moved onto the next step. David was a great instructor as well
- teaching us how to read and tinker with XSLT and XPath, Also introducing us to a broad range of transformations XSLT can do.
- I found the entire seminar useful - some of it was easier for me to understand, but probably more down to my ability. I fell behind a little on Tuesday, particularly in the afternoon when we were doing the KML session.

What portions of the seminar did you feel were least helpful or least successful?

- Coverage of XTF and Boilerplate was very good but it felt like just a little too much to take in for the amount of time allotted.
- For me all was helpful.
- I think the most difficult task for the seminar leaders is to scale up from the exploration of local (teaching) examples to demonstrate a system driven by XSLT. In that vein, while I appreciated the final unit on TEIBoilerplate and XTF, it wasn't as successful as the earlier sessions.
- When it ended? This is a difficult answer as every single aspect of the seminar was useful to me.
- practicing in the XML databases -- but it was useful to use that time for other practice
- All were helpful, but maybe the TEI Boilerplate was the least successful.
- No complaints. Everything was interesting!
- The review of XTF was less helpful for me in that it was great to know about it, but I'm not ready to even think about implementing yet. Additionally, I also found the portions on conditionals to be less successful for my learning -- but this is probably a function of how I personally think.
- By the third day of instruction, it was becoming difficult to keep up with the content being presented. I wouldn't say it was unsuccessful by any means, but it was a bit hard to stay focused after the first two days.   Also, at times it seemed unclear whether we had shifted to hands-on, one on one instruction or were still in class-wide presentation mode. Again, not enough to detract from the experience, just a thought. :)
- Not that it wasn't helpful, but I think I would have preferred to cover more examples of what kinds of transformations can be accomplished with XSL rather than going into such granular detail with a few.
- Nothing really stands out as unhelpful and/or unsuccessful. Some things I'd need to sit down and work with much more before I fully understood them, but that's partly a matter of my learning style, and it helps to know what's out there to explore if and when I need it.
- No parts were unsuccessful: each provided a good introduction to an alternative means of publishing XML data, as the workshop promised.
- I thought all sections of the seminar were helpful
- Later portions of the seminar were still very interesting, but I was less able to see an immediate use for them. Then again, part of what I enjoy so much about this kind of seminar is the opportunity to learn some of the basics while also getting a sense, however sketchy, of the broader topic.
- The XTF stuff seemed really complicated, and it was above the level that I am working at, so I would have liked less of a focus on it.
- XTF
- I don't think it was least helpful, but the morning session on the last day was rather difficult to follow. what is tomcat? meow? for a beginner like me, it would have been great if there was more general instruction about the programs - various publication tool. however, I will review them by myself again...

- Hands-on activities were useful, but somehow for XSLT in particular, this was much harder than learning TEI! Steep learning curve, yes. But we did need to dabble, and our instructors valiantly came to the rescue when we had individually questions.
- It was all useful, I can't really say that any of it was unhelpful.

Do you have suggestions for additional topics we should have covered, or other activities that would have been useful?

- It would be helpful to have some overview of the kinds of TEI publications that are most successful/likely to be funded.
- I think more community-building activities would be useful. Participants introduce themselves up front, but other forms of sharing would be beneficial. It would also be interesting to learn about participants' and leaders' career trajectories and how DH skills and technologies have contributed to or influenced their work. Maybe this kind of conversation could be coordinated over a provided meal.
- No—keep up the phenomenal work.
- I would like an additional day possibly, or more exercises, but I wasn't able to bring any current TEI materials I was working on, which may have impacted my ability to dove-tail my learning experiences during the last 45 minutes of the seminar, another semi-guided exercise may have helped those of us who didn't have a project, but I may have been the only one this would have helped.
- It should have been useful to deep on more advance XSLT transformations.
- At least 3 projects in the group are using Drupal and we were all wondering how to get our TEI and XSLT into Drupal. We were thinking that maybe TEI Boilerplate would work or some similar idea whereby we'd have to write some PHP to pull the XML and XSLT into the content part of Drupal's pages? So a brief session on what to do with the TEI and XSLT when we're done, how to get it to work in a content management system rather than simply uploading it to a server, would be helpful.
- I really enjoyed the group dinner on the first night; it was a great way to get to know everyone in a more informal setting, and I had several great conversations about different folks' work.
- Can't think of anything.
- Perhaps a little more of a distinction between exercises and hands-on work on our own projects--but this may be nitpicking. I also thought the relaxed approach to hands-on was quite good.
- I was probably on the lower end of experience of the folks there, but I could have used a bit of a TEI refresher, just to go over the difference between attributes and elements, for example. Perhaps there could be an optional review to do at home before the seminar?
- considering projects that deal with several XML-TEI documents and not only with one
- I think the hands-on activities worked best on day 1 when we all were working on very specific XSLT exercises...I want to suggest making some time for little specific assignments like that, though I realize there's a benefit to freeform hands-on work with our own projects...and I did benefit from that, too.   Somehow I think what worked best, what will help me the most for the long term, was the interactive back and forth of Syd and Julia and David with the class as a whole as they explained principles and practices.

- Not particularly - I think we did well to cover all that we did in the time allocated. The only other thing that I would have liked to have discussed would be how to place an image of the manuscript next to text on pages we publish, but I'm not sure how easy this would be.

Do you have suggestions for how we might improve the conduct of the seminar?

- These may be out there and I just haven't found them yet, but I'd like to be pointed to exercises (homework!) that would drive home the lessons we learnt and allow us to familiarize ourselves further with the individual pieces of code we tackled.
- I feel like the seminar was conducted about as well as I could imagine. Those who fell behind were caught up with the help of the instructors who weren't actively lecturing or discussing, and the flow of the sessions was well developed.
- The conduct was great.
- I wonder if brief 'formative assessment' (as they say) exercises would be helpful for both leaders and students -- we joked some about pop quizzes etc., but I wonder if mini-exercises would provide better feedback for questions like "does this make sense? should we talk about this more or move on?"
- None come to mind. I think you all did a wonderful job with an unwieldy topic and the time you had.
- I thought the organization and pacing was very good -- the schedule made good use of the time available, while allowing a humane/realistic amount of time for breaks, lunch, etc.
- Not really: I thought is was well-taught and had a collegial atmosphere.
- I wonder if more hands-on would have been useful? Or perhaps breaking up into folks who needed the advanced XTF slides and explanation, and those who just wanted to experiment with TEI Boilerplate? I liked that we looked at a number of good examples of sites, but it would have been fun to look under the hood of some of those sites.
- Maybe the introduction of more hand-on practice spaces will facilitate de assimilation of concepts
- Keep holding these and being willing to introduce us newbies to complex stuff! It's a good challenge and you do this very well. Thank you!
- No - I thought it was really well organized, everyone kept on schedule.

If readings were suggested, which readings were most and least helpful? are there other readings you can recommend?

- NA. We have been pointed to plenty of reading for further work.
- Since the seminar has ended, I have skimmed and purchased Michael Kay's guide to XSLT and X-Path, which will provide an excellent reference as I continue to learn about XSLT.
- The last list of links and readings (Wrap-up) was really helpful.
- Readings weren't suggested before, but I'm grateful for and will be using the resources presented in the final wrap-up.
- None come to mind. More models presented at the start might be helpful. In other words, briefly presenting some XSLT based projects, then going into instruction time, then going back to them during the wrap-up to discuss how they work behind the scenes.

If advance preparation or exercises were assigned, how useful were they? Are there forms of advanced preparation you can suggest that would have enhanced the seminar?

- It was certainly useful to think in advance about how our project would benefit from XSLT
- It was useful to spend time preparing my own files in advance of the workshop. I hadn't worked with them for a while, so it was good to re-acquaint.
- perhaps major terms or concepts. Brief outline of the concepts.
- I had prepared material from my own project in advance and used some of this during exercises - I found this helpful.

Would it be helpful to you to share materials with other participants after the seminar, and to see the materials that others create (e.g. customization files, documentation, lesson plans and syllabi, stylesheets, etc.). If so, what kinds of materials would be most useful?

- Documentation and lesson plans of others would be useful.
- I would suggest a short activity or conversation on the final day in which each participant shares one thing they learned/achieved or what they plan to do next with the technology. Participants take away very different skills and knowledge so this would be useful for all. Furthermore, it would be a good opportunity to get a better idea of fellow participants' projects, after the initial introduction (which is often forgotten) and when the technical needs of their projects can be understood through the knowledge acquired. I also think this would provide a foundation for potential collaboration and contact between participants after the seminar.
- Yes. I'd be especially keen to see sample, simple files and stylesheets that are in use in actual projects (and which come with lots of documentation!).
- I think this would be very interesting, even as simple links to projects as they appear in an online space, or throughout their development
- It would be useful, mostly the one devoted to XSLT transformations for digital editions.
- Now that you mention it, yes. Perhaps create a shared Dropbox folder where we could upload our stylesheets and see the XSLT stylesheets others created during the seminar. Or maybe not a Dropbox folder where everyone from my particular seminar uploads their stylesheets so much as a folder by seminar topic that builds and grows over the years. It could be a "best of" rather than everyone's. The stylesheets would be most helpful though if they people writing them embedded comments explaining what a particular template is designed to do so we'd have real life examples for particular situations.
- yes . . . stylesheets and syllabi sound most tantalizing
- Yes. Many of the participants are trying to achieve similar results, but don't necessarily see the solutions during the course of the seminar. If we could share our results in some way (email wrap-up maybe), we could pool our newfound knowledge, that would be very helpful.
- Yes, I think this would be helpful, as well as providing some documentation of impact after the event itself. Perhaps something even as simple as a WWP-outreach based wiki available to participants?
- Yes; any or all of the above.
- Yes, I think so. Perhaps something along the lines of the section of the TEI Wiki where participants share stylesheets that they have created for specific purposes.
- yes, it would be really interesting to see XSLT style sheets that other have created

- For me, it would likely be a while before I had much to share, but it's always fun to see what others are working on, or how they apply in different ways some of the concepts and tools we learned.
- Yes, I would love to see how others' projects are coming along. I hope they will share them on the listserv.
- Yes, I think is good to see more examples of XSLT stylesheets
- lecture slides are the most helpful. I wish I could have the files.
- yes--hoping to keep in touch with other participants as we work on projects...Stylesheets and project descriptions and syllabi if using in courses would be great.
- Possibly but I wouldn't be too concerned about this other than being aware of projects that use these tools and technologies.

Are there other forms of followup activity that would be valuable, either from the WWP staff or from other participants?

- I think any way to stay in touch and hear about what the other projects are doing or helping with issues they may be having. However, one or two of the list-servs offered at the end of the course would likely be able to serve as this tool.
- I was glad to hear about the WWP participants listserv and will probably be availing myself of that as I'm sure to have follow-up questions but don't know what they are yet.
- I'd certainly like to hear about more advanced or otherwise complementary workshops; it would be great to get announcements about completed (whatever that means) projects from folks who have taken these seminars.
- I like the idea of sharing names and contact info., which I gather is already in progress. Perhaps we could combine that info with some of the things listed in #11 above. I'm trying to think of a mechanism — Google spreadsheet, perhaps?
- The invitation to contact the WWP team on their listserv was very welcome!
- any further information about XTF and its kinks would be very helpful
- A distribution list of all participants' email addresses and Twitter handles would have been nice. I thought that we had an especially friendly group of participants, and I would love to stay in touch with them.
- follow up while designing our stylesheets
- dinner and socializing were great :) informally we shared our projects one another, but it would be also great, we could do it in class as well. I also had a chance to speak with Syd, Julia and David about my own project and got lots of help. thanks.
- Glad there's the WWP-list!
- I think knowing about the lists, forums etc. is helpful and the fact that we have been told we can get in touch with Julia and Syd directly is helpful. Not sure any other additional followup activity is necessary.

Are there any other comments you would like to share with us?

- Thank you so much, this was very helpful. I just wanted to list a few of the more specific things I learned: Understanding that apply-templates translates to "process my children" and that there is a built-in default processor greatly clarified how XSLT functions. The step-through feature in the Oxygen debugger used to really confuse me because I didn't understand that it was not reading down the templates in order but instead working through the input by layers. Understanding the power of the select attribute of apply-

templates was huge. I did not know before that you can select elements from anywhere in the tree, I thought I could only select things from within the element matched by the template.   Didn't know a default XPath namespace could be set. Such a relief to know I can stop typing the TEI prefix all over the place.   Learned some useful shortcuts and features in Oxygen.   Walking through TEI Boilerplate and having sample files set up was very helpful. I've tried to understand how I might use Boilerplate before but didn't have a clear understanding of it until this workshop.

- This seminar was excellent. I have taken other similar courses and this was the most successful in several respects. I especially appreciated the sample XML and XSL documents created to accomplish pedagogical goals, the theoretical and practical approaches to the technologies, and multiple teachers in the room to reflect different facets of an issue and to aid with participants on the fly. Thank you!
- Just to say a big thank you. Julia and Syd, under the auspices of NEH, have trained and are continuing to train a generation of digital humanists.
- Thanks so much for offering this seminar, it has helped me more than you may realize.
- Thank you; it was wonderful!
- Both the contents and the organization were really great.
- I feel like I learned more in 3 days than I could have taught myself in 3 months. Thank you!
- Thank you for the wonderful and useful information -- and the huge boost to my confidence that came with it!
- Thanks for a great couple of days! I learned a great deal, and have been chewing on it ever since--as I'm sure I will continue to do!
- Thank you! Although I sometimes feel embarrassed at how slowly I'm managing to implement the things I'm learning in the DH realm, this seminar was tremendously helpful; it really felt like a completion of the TEI class I took earlier at DHSI, since I now have a sense of what can be done with my TEI files (which, in turn, helps me make decisions about how to structure them, and what to include).
- A great workshop! Many thanks to Julia, Syd, and David for sharing their expertise so generously. Similarly, the availability of travel funding for the workshop was very generous.
- thank you for a very informative three days
- Thanks so much for a great seminar. It's so refreshing to talk to presenters and fellow participants who are so enthusiastic and engaged, and it inspires me to learn more.
- The instructors were an absolute pleasure to work with; they met each one of us at the level we were at and were so encouraging and helpful. I learned much about pedagogy just watching them in action. Also, I found their slides and preparation absolutely incredible, and their attention to each one of us was so impressive. I am very thankful for being their student for a few days.
- It was very good experiences that helps me to have a bigger picture of what I need to do to successfully develop my project
- Julia, Syd, and David.   you were really fantastic. thank you so much.
- Thanks for running a highly informative, skill-building, and motivating series of seminars!
- I thought it was a very well-run course and am very grateful to have had the opportunity to attend. While it was a steep learning curve for me, I learned a huge amount and will go through the materials again until I get more proficient! The only thing I would say is that it might have been useful to suggest we refresh our knowledge of some of your other modules

before doing this course - it didn't really occur to me but I should have done a quick recap beforehand! Thank you to all three instructors.

Teaching With TEI

What portions of the seminar did you feel were most helpful or most successful?

- Working in small groups to develop a specific assignment scaffolding
- The chance to discuss, compare notes, etc. with others.
- I thought all portions were extremely helpful but hearing what successes others had at their home institutions was encouraging and stimulating. I would have enjoyed the opportunity to take a look at the syllabi, workshop descriptions, and course assignments of participants to get a better idea of what works (or not) and why.
- Consideration of the process and scope of teaching
- I really liked the larger theoretical discussions about why and how to teach with TEI.
- The group of people was really phenomenal in helping me think through the issues, so the conversation time was great. But the most helpful section, I think, was the time spent trying to actually do the assignment in light of what we'd learned.
- I thought the times where we came back together after small group break-outs were excellent. Julia masterfully shaped those conversations; much came from them.
- Looking at sample syllabi and assignments, the group work. The seminar was excellent overall!
- I really enjoyed splitting up with the groups to develop the assignment as a complement to the lectures. Too much group time might have eventually felt undirected, or too much time given to lectures might would not have given me the chance to test out the ideas within the assignment. I felt that meeting in group gave me the opportunity to encounter questions that otherwise I wouldn't have or had to face in the classroom without as much advanced prep. Also, both the lectures and small group exercises helped to focus the assignment on places I had not placed much emphasis on -- pre and post assignment.
- The last day, working on TEI output, will make the biggest impact on my teaching, before this I didn't have a good sense of how to publish or display student work in an appealing way. I think that the group breakout meetings were also helpful on some level, though I would have liked to work with a larger group.
- The focused working groups; the expertise and input that Syd and Julia were able to give for our individual course-development ideas.
- Group discussions
- The assignment/project/workshop design work in small groups and the large group discussions of ways to create different kinds of learning environments using TEI.
- The interchange of ideas; the diagrams were very well done as well as the explanations; the working in groups; the opportunity to talk to the presenters and for them to offer their expertise directly was very useful
- Hands on Oxygen demos, pedagogical discussions
- It was all great. Because it was a smallish group, I was able to learn a great deal from the experiences of others. I think I'm a slow-TEI-learner and I can't assert strongly enough how much it helps me to hear Julia and Syd work out problems that other groups have.
- Setting up a TEI teaching environment
- the hands on work with instructors circulating

- Discussions and demonstrations
- Every portion was helpful. I found other participants' ideas for TEI, their expectations concerning the use of TEI in a classroom, as well as the more technical parts of the institute both stimulating and very clear.
- hands-on practice with consultation
- I particularly enjoyed the introductory material and the discussion of learning objectives and evaluation at the end.
- Templating with ROMA, the pedagogical discussions. For my work, it's tremendously useful to see how faculty think about teaching this stuff, since working with them on that will likely fall to me in many cases.
- TEI customization
- The discussions about why we are doing what we are doing and how we should go about doing it were really helpful.
- It was really helpful to me to have an opportunity to revisit topics I'd encountered at previous WWP TEI Workshops. I made a real ODD this time, for example. Iterativity is important to building my TEI skills.

What portions of the seminar did you feel were least helpful or least successful?

- I can't really think of one
- I think it's more me than the structure of the class, but I find the hands-on somewhat less helpful, simply because I absorb things best by experimenting with them more slowly, by myself. That's not an argument for eliminating the hands-on.
- The group work sessions were less useful for me because we talked very generically about a hypothetical assignment, however, working through the problems of that hypothetical assignment was extremely useful.
- nothing
- I feel that everything was helpful, but I would have benefitted from even more time to work on producing and working through the assignment.
- none come to mind.
- If something could be improved (and I'm not sure it could), I would suggest re-thinking that first opening session. The questions are good. However, participants begin to drift into a "this is how my institution has wronged me" narrative, which might be useful to some, but I imagine it would come up anyways. A more directed, goal-driven conversation might help put some of that stuff in the rearview mirror more quickly.
- Many of the other participants were teaching English courses and their experiences were not as relevant to mine. So some of the discussions focused on those issues. But all in all, it was excellent.
- Schema creation; purely because the process of creating a schema itself is tricky.
- Perhaps time spent on our own projects could have been done outside of the class.
- I had a little difficulty bringing my project started in the small group to enough completion to make use of the display session fully, but was very happy to have a chance to try Boilerplate, which I had not used before.
- There was nothing unhelpful
- Since I work a bit slow still with TEI, I don't always benefit so much from hands-on time.
- None

- There were no least helpful or least successful portions to the seminar
- CSS
- I think it might have been helpful to start with a brainstorming session about learning objectives, which participants could return to periodically during the following days' discussion.
- Falling slightly outside of the target audience meant that some portions were less directly relevant for me, but that's 100% fine.
- Introduction to CCS & XSLT
- I felt like the workshop was very well-balanced and do not have any comments about things that did not work.

Do you have suggestions for additional topics we should have covered, or other activities that would have been useful?

- Some time for independent work on our own projects to be brought back to the small group sections for workshopping would have helped use the expertise of those groups while focusing on and identifying our unique needs.
- More time to share process across groups
- It would be cool to have perhaps a case study section where we hear from an instructor who has taught with TEI and then worked through the assignment with them leading to understand how they structured the assignment.
- I think, if possible, some practice time for people to try out their ways of describing/explaining/introducing TEI would have helped.
- I think we could have actually done a document. We could have each taken a document that we've already worked on, worked on it in TEI, used analysis tools on it, styled it, and posted it. At each stage we could engage with theoretical questions of pedagogy along with practical matters of TEI fluency. Perhaps that would be a seminar geared to a more introductory audience, but I do think so of us in that room could benefit from that type of skills targeting.
- It might have been useful to see a teaching demonstration of how TEI is taught to students who know nothing about it.
- It might be helpful to make a list of materials that will be useful in the upcoming course. For example, what are all of the "pieces" I will need (e.g. Oxygen, handouts/crib sheets, etc.). I would have liked a bit more time for prep work.
- I can't think of any, I got more than I expected from it.
- It would have been nice to get a chance to play around with TEI Bootstrap or other visualization tools a little more in class.
- no
- more exercises and real case of study
- I would have liked to have used the Google doc as a shared space for all of our lesson plans
- The seminar was complete and well constructed
- It is hard to obtain a balance between open discussions and content. This time I think that the open discussions some times took to much space and could have been cut to not be too focused on one personal course direction.
- No
- Would have loved a chance to share our lesson plans and talk them through a little more.

Do you have suggestions for how we might improve the conduct of the seminar?

- The conduct of the seminar was great -- no improvement needed.
- It was great--both professional and collegial. I really thought Syd and Julia did an amazing job!
- It was really wonderful. But, I wish there had been pitchers of water.
- I can't speak highly enough of Julia and Syd. Very capable, obviously fluid in their interaction together and expertise with the material. I think this feedback is supposed to go to the NEH and of course they won't included this comment because they are too humble.
- I never learned some of the participant's names. Sticking a piece of paper on our laptop covers with our name and perhaps school/department would have helped.
- No, it was really well organized!
- Small suggestion - to either use name tags (I know, nobody likes them, but they do help!) or ask people to make a small sign for the back of his/her laptop so we get to know each other more quickly. Each sign could list name / institution / department perhaps ...
- No. I really appreciate the sort of organic nature of these workshops...and they way Syd and Julia work through problems in the moment.
- It was great, I don't have particular suggestions...
- The seminar was complete and well constructed
- Just to be more strict with the timeplan.
- The way you conducted it was already very strong

If readings were suggested, which readings were most and least helpful? are there other readings you can recommend?

- The "even gentler introduction" was definitely a useful refresher; it was also useful to look at syllabi in advance. I wish I'd spent more time looking at TEI by Example beforehand (it was recommended, but I suppose could have been recommended/highlighted more strongly).
- TEI Guidelines
- The readings were a great refresher for someone who had not used TEI in a couple months.
- Gentle introduction to XML was great, and perhaps a case study addition as I suggested above. Perhaps solicit a write-up from a participant in our seminar to serve as a future case study.
- I would suggest having folks complete TEI By Example and send in their "results." That would ensure more fluency, I think.   Other readings... I think that is one of the outcomes that someone is now working on.
- The Birnbaum reading was very good. I also liked TEI by example. I would benefit from a reading that we could use with students that explains the broader importance of encoding. I think that larger piece is missing from the literature, and this is important for "selling" our students and departments on the value of text encoding.
- The readings were very helpful. I would love to have a supplemental list that includes some DH theory as well.
- Perhaps there are some readings on teaching with technology that might have helped with the general theme. Some of the issues were not TEI-specific but more about tech.

- I might have liked to go over some of the syllabus examples beforehand, so I could have gone into more detail during discussion.
- Would be great to build up a collection of case studies , essays, other
- There weren't any advanced readings, but I would have been glad to have had some.

If advance preparation or exercises were assigned, how useful were they? Are there forms of advanced preparation you can suggest that would have enhanced the seminar?

- Perhaps preparing an assignment sheet to use in a kind of group workshop.
- The readings were all useful overall. Maybe we should have been given the sample syllabi ahead of time so that we could read through them more carefully and have a more informed/detailed conversation about them. Also, maybe everyone should have circulated a paragraph length course description ahead of time?
- I would suggest doing some TEI by example beforehand to do some brain recall, if needed.
- I think that if we created and shared our TEI assignments before the seminar began, we might have gotten going a bit faster. Much of our group time was spent explaining assignments and then trying to mesh them together.
- They were a great refresher and helped me get in the right frame of mind to hit the ground running.
- very useful. What was suggested was targeted for what we were we were going to do.
- Thinking about specific assignments using TEI really enhanced my understanding of some of the challenges of breaking the lesson plan down into manageable bits. While I thought I did this before coming, I did a lot more in the evenings going over the material presented in class.
- Perhaps a way to "force" seminar attendees to begin communicating before they meet face-to-face
- Really good
- I think it would be helpful if each participant came with an assignment they had taught before or one that they were planning to teach (which, as mine was, would likely change considerably over the course of the workshop).

Would it be helpful to you to share materials with other participants after the seminar, and to see the materials that others create (e.g. customization files, documentation, lesson plans and syllabi, stylesheets, etc.). If so, what kinds of materials would be most useful?

- I'd love to see others' syllabi and exercises.
- yes!
- I would like to see the lesson plans and syllabi of others teaching with TEI, especially those prepared after the workshop. A group Dropbox folder would be an easy and private way of sharing teaching materials during and after the workshop.
- Absolutely! I think teaching materials and possibly more structured responses to the experience of teaching.
- YES! I'd love to see all of those things from others, as well as the projects that students did in the classes where they were assigned to use TEI.

- YES!!! Lesson plans and syllabi. The customization file package from Syd was worth coming to the seminar along. He and Julia did a nice job walking us through those files and their applications; not self-evident out of context on the web, to me.
- I would LOVE to see other people's syllabi and assignments! I would also love to hear about their experiences teaching TEI: what went wrong? what went well? etc...
- Yes, documentation, lesson plans & syllabi, and an assessment of how the assignment went would all be helpful!
- Yes, it would be very helpful. Syllabi and readings are hard to find on these topics. I'd also love to have access to other documents and style sheets because we could use them to demonstrate how they work in the classroom.
- Yes! Assignments and syllabi for various different kinds of classes.
- Yes, I want as much as possible.
- I plan to use and share the materials. They are very well done and accessible.
- yes, anything
- Yes! Templates, schemas...
- Yes, lesson plans and syllabi
- All listed: "customization files, documentation, lesson plans and syllabi, stylesheets ..."
- I think that syllabi, ideas for specific assignments, and assessments of how well those assignments worked would be useful.
- I would like to have a video capture of a basic TEI workshop given by the WWP broadcasted for inspiration.
- I would love to share lesson plans, syllabi and stylesheets.
- Yes. I'm full of ideas for learning objects (videos, etc) that could be used to introduce some of these technical concepts to students who will be doing encoding as part of their humanities coursework. I'll share if I can get this off the ground. But examples, particularly of completed projects using TEI is always useful--personally and pedagogically.
- Lesson plans and syllabi
- Yes! lesson plans, best practices, etc.

Are there other forms of followup activity that would be valuable, either from the WWP staff or from other participants?

- Maybe something with XSLT and other ways of transforming or visualizing (but that seemed outside of the scope of the workshop)
- I think a follow-up seminar next summer with participants, while possibly a pipe dream, would be amazing because I thought we had such a great, diverse group and it would be really beneficial to revisit the topic after our experiences and perhaps at an even more advanced level.
- I think the listserv is a good idea.
- I look forward to being a part of the listserv and I can imagine a day in the future where we bring Syd and or Julia in as consultants for a site visit. They are that good.
- Yes, it would be nice if there was an easy way for everyone to stay connected about these issues
- Maybe a Skype meeting for those interested in working out some pre or post assignment details.

- I think that the WWW-Encoding list is a good start on this, but perhaps we could get occasional nudges to post materials. That might get the list more active.
- I look forward to hearing from the listserv.
- The forms of continued contact and continued access to materials described in the last session sound excellent.
- Probably, if we could send some of what we do in the future, materials, plans and such and get some feedback.
- I appreciate getting to know people and projects, and staying in contact. I guess that's an individual response, and I feel at that point it is up to me to foster those relationships.
- blog, newsletter
- liked the idea of a collection of essays. Keep us thinking, talking
- I would like to share ideas on how to persuade colleagues and institutions of the importance of   teaching TEI to our students.
- handouts, a forum discussion

Are there any other comments you would like to share with us?

- Thank you!
- This was the best digital humanities seminar I have ever attended (and I've attended quite a few). The group dynamic was really wonderful. It seemed like everyone was engaged, participating, and benefiting and it was an excellent networking opportunity. Thank you, Julia, in particular, for your attentiveness to gender dynamics in discussion. Also, many thanks for the funding opportunity; this would have been difficult to afford otherwise.
- I thought the workshop was great! Thank you!
- I both learned a lot and met a bunch of amazing people and could not have asked for a better experience. Thanks so much to Julia and Syd for an amazing workshop!
- Thank you, both for the opportunity and what you helped us to make of it.
- It was a great workshop! Thank you!
- This seminar was incredibly valuable and urged me to consider important questions about the pedagogy I wouldn't have otherwise. I also loved having a multi-disciplinary, multi-institutional perspective.
- If possible, have water available as well as coffee/tea. Esp. in the afternoon.   I found this workshop extremely helpful and know that I'll be able to adopt what I learned immediately. Thanks!
- Thank you!
- Thank you for a great seminar!
- Thank you so much! This program has greatly enhanced my confidence and wherewithal for the immediate course teaching goals I brought with me, as well as my long-term aims to integrate TEI and textual encoding in my teaching.
- I am very thankful to you for all you do. Your love for the work and for working with us has been very good.
- Thanks!
- Thank-you!
- This seminar especially helped clarify importance of TEI (more broadly, modeling). I really benefited from the seminar!

- I really needed this stimulation. It is hard to work in isolation and very helpful to hear the experiences of colleagues, and their plans for using TEI in the classroom. It gave me some perspective on my expectations and inspired me to think about incorporating TEI into future curricula.
- Thanks much! I have a feeling we'll be seeing more of each other.
- Thank you!!!
- Thanks!
- Thank you so very much!